



South Carolina Department of Health  
and Environmental Control

Division of Procurement Services

Invitation for Bid

Solicitation No.: IFB-35250-1/6/09-EMW  
Date Issued: 12/3/08  
Procurement Officer: E. Madison Winslow  
*E. Madison Winslow*  
Phone No.: 803-898-3487  
E-mail Address: [winsloem@dhec.sc.gov](mailto:winsloem@dhec.sc.gov)

DESCRIPTION: Tier II assessments at multiple sites throughout South Carolina

*The Term "Offer" Means Your "Bid" or "Proposal"*

SUBMIT OFFER BY (Opening Date/Time): January 6, 2009/2:30 pm ET

See provision entitled "Deadline for Submission of Offer"

NUMBER OF COPIES TO BE SUBMITTED: **One (1) original and**

QUESTIONS MUST BE RECEIVED BY: December 15, 2008/2:30 pm ET

See provision entitled "Questions from Offerors"

SUBMIT YOUR SEALED OFFER TO EITHER OF THE FOLLOWING ADDRESSES:

MAILING ADDRESS:	PHYSICAL ADDRESS:
SC DHEC Division of Procurement Services Bureau of Business Management 2600 Bull Street Columbia, S.C. 29201	SC DHEC Division of Procurement Services Bureau of Business Management 2600 Bull Street, Room 1200 – Aycock Bldg. Columbia, S. C. 29201

**Offers Must Be Sealed:** See provision entitled "Submitting Your Offer"

AWARD &  
AMENDMENTS

Award will be posted on **January 13, 2009**. The award, this solicitation, and any amendments will be posted at the following web address: <http://www.scdhec.net/procurement>.

You must submit a signed copy of this form with your offer. By submitting a bid or proposal, you agree to be bound by the terms of the solicitation. You agree to hold your offer open for a minimum of thirty (30) calendar days after the opening date.

NAME OF OFFEROR (Full legal name of business submitting the offer)		OFFEROR'S TYPE OF ENTITY: (Check one)  <input type="checkbox"/> Sole Proprietorship <input type="checkbox"/> Partnership <input type="checkbox"/> Corporation (tax-exempt) <input type="checkbox"/> Corporate entity (not tax-exempt) <input type="checkbox"/> Government entity (federal, state, or local) <input type="checkbox"/> Other  (See provision entitled "Signing Your Offer")
AUTHORIZED SIGNATURE  (Person signing must be authorized to submit binding offer to enter contract on behalf of Offeror named above.)		
TITLE (Business title of person signing above)		
PRINTED NAME (Printed name of person signing above)	DATE	

Instructions regarding offeror's name: Any award issued will be issued to, and the contract will be formed with, the entity identified as the offeror above. An offer may be submitted by only one legal entity. The entity named as the offeror must be a single and distinct legal entity. Do not use the name of a branch office or a division of a larger entity if the branch or division is not a separate legal entity, *i.e.*, a separate corporation, partnership, sole proprietorship, etc.

OFFEROR'S HOME OFFICE ADDRESS (Address for the offeror's principal place of business)		
CITY	STATE	ZIP CODE
PHONE	FACSIMILE	E-MAIL
STATE OF INCORPORATION (If offeror is a corporation, identify the state of Incorporation)		
TAXPAYER IDENTIFICATION NO. (See provision entitled Taxpayer Identification Number)		



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**PAGE TWO**

**(Return Page Two with Your Offer)**

<b>HOME OFFICE ADDRESS</b> (Address for offeror's home office / principal place of business)	<b>NOTICE ADDRESS</b> (Address to which all procurement and contract related notices should be sent.) (See "Notice" clause)								
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Area Code</td> <td style="width:20%;">Number</td> <td style="width:20%;">Extension</td> <td style="width:45%;">Facsimile</td> </tr> <tr> <td colspan="4" style="padding: 5px;">E-mail Address</td> </tr> </table>	Area Code	Number	Extension	Facsimile	E-mail Address			
Area Code	Number	Extension	Facsimile						
E-mail Address									

<b>PAYMENT ADDRESS</b> (Address to which payments will be sent.) (See "Payment" clause)	<b>ORDER ADDRESS</b> (Address to which purchase orders will be sent) (See "Purchase Orders" and "Contract Documents" clauses)
†Payment Address same as Home Office Address †Payment Address same as Notice Address (check only one)	†Order Address same as Home Office Address †Order Address same as Notice Address (check only one)

<b>ACKNOWLEDGMENT OF AMENDMENTS</b>  Offerors acknowledges receipt of amendments by indicating amendment number and its date of issue.  See "Amendments to Solicitation" Provision	Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date

<b>DISCOUNT FOR PROMPT PAYMENT</b> See "Discount for Prompt Payment" clause	10 Calendar Days (%)	20 Calendar Days (%)	30 Calendar Days (%)	_____ Calendar Days (%)
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<b>PREFERENCES – SC RESIDENT VENDOR PREFERENCE</b> (June 2005): Section 11-35-1524 provides a preference for offerors that qualify as a resident vendor. A resident vendor is an offeror that (a) is authorized to transact business within South Carolina, (b) maintains an office* in South Carolina, (c) either (1) maintains a minimum \$10,000.00 representative inventory at the time of the solicitation, or (2) is a manufacturer which is headquartered and has at least a ten million dollar payroll in South Carolina, and the product is made or processed from raw materials into a finished end-product by such manufacturer or an affiliate (as defined in section 1563 of the Internal Revenue Code) of such manufacturer, and (d) has paid all assessed taxes. If applicable, preference will be applied as required by law.	<b>OFFERORS REQUESTING THIS PREFERENCE MUST INITIAL HERE.</b> _____  <b>*ADDRESS AND PHONE OF IN-STATE OFFICE</b>  †In-State Office Address same as Home Office Address †In-State Office Address same as Notice Address <div align="right">(CHECK ONLY ONE)</div>
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<b>PREFERENCES – SC/US END-PRODUCT</b> (June 2005): Section 11-35-1524 provides a preference to vendors offering South Carolina end-products or US end-products, if those products are made, manufactured, or grown in SC or the US, respectively. An end-product is the item identified for acquisition in this solicitation, including all component parts in final form and ready for the use intended. The terms "made," "manufactured," and "grown" are defined by Section 11-35-1524(B). By signing your offer and checking the appropriate space(s) provided and identified on the bid schedule, offeror certifies that the end-product(s) is either made, manufactured or grown in South Carolina, or other states of the United States, as applicable. Preference will be applied as required by law.	<b>IF THIS PREFERENCE APPLIES TO THIS PROCUREMENT, PART VII (BIDDING SCHEDULE) WILL INCLUDE A PLACE TO CLAIM THE PREFERENCE. OFFERORS REQUESTING THIS PREFERENCE MUST CHECK THE APPROPRIATE SPACES ON THE BIDDING SCHEDULE.</b>
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End of Page Two



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**PURPOSE AND SCOPE OF WORK:**

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control (DHEC) is seeking services to perform investigations to determine the subsurface geology as well as the horizontal and vertical extent of petroleum chemicals of concern (CoC) released from regulated underground storage tank systems and in accordance with predefined standard operating procedures and performance standards for all facilities. The data collected to date varies with each facility. The objective is to gather the appropriate information to evaluate the risk the release may pose in accordance with the "South Carolina Risk-Based Corrective Action For Petroleum Releases" guidance and R. 61-98. Certain elements included in the specifications may already be completed or may not be necessary for each scope of work. For the purpose of this bid, the bidder shall propose a unit price for completing each component but the actual components to be performed at a facility (upon award of the bid and notice to proceed for that facility) will be detailed in a Tier II Assessment Plan for each site. See the "Bidding Schedule Calculation" section for more detailed information. All activities under this contract will be funded by accounts managed by the South Carolina Underground Storage Tank Program. Only bid applications submitted by DHEC certified site rehabilitation contractors will be considered. **The DHEC reserves the right to reject any and all bids that appear to be above customary and reasonable costs for the same scope of work or for prior performance history.**

**SPECIAL CONDITIONS**

1. **CONTRACT PERIOD:** The contract will be for one year from the effective date indicated in the purchase order.
2. **OPTION TO RENEW OR EXTEND:** This contract will automatically renew unless DHEC or the contractor elects otherwise. A maximum of one renewal will be allowed for a one-year period for a maximum of two total years. If either the contractor or DHEC elects not to renew the contract, Business Management must be notified in writing at least 90 days prior to the expiration date.
3. **NOTIFICATION FOR FAILURE TO PERFORM:** If the contractor fails during the course of this contract to properly complete assigned assessments, or to meet any requirement or specification of Tier II assessment as outlined in this document without prior notification to the project manager of circumstances legitimately beyond the control of the contractor, SCDHEC will, on the first occurrence, notify the contractor by certified letter and meet with them to establish a remedy for the deficiency (ies). If the contractor corrects the deficiency (ies) within an agreed to period of time, the Tier II award will continue. If the contractor does not correct the deficiency (ies) within the agreed to period of time, the contractor will be in breach of contract and the Tier II award may be voided by SCDHEC. On the second occurrence, SCDHEC will notify the contractor by certified letter and meet with them to establish a remedy for the deficiency (ies). If the contractor corrects the deficiency (ies) within an agreed to period of time, the Tier II award will continue. If the contractor does not correct the deficiency (ies) within the agreed period of time, the contractor will be in breach of contract and the Tier II award may be voided by SCDHEC. **If the contractor fails on a third occasion during the course of this contract to meet any requirement or specification established in this document, the contractor will be in breach of contract and the award will be voided by SCDHEC.** SCDHEC will notify the contractor by certified letter that the contract award has been voided and will initiate appropriate actions in accordance with Section II.A.12. of this contract. **In the event that the contract award is voided due to a breach of contract as outlined above, no further payment of any invoices will be made.** If the contract action award is voided under the circumstances listed above, the contractor will incur a one-year suspension from bidding on any UST-related solicitations in South Carolina and may be subject to suspension or decertification in accordance with the SUPERB Site Rehabilitation and Fund Access Regulations, R.61-98.
4. The successful bidder(s) must be able to work on a minimum of five (5) facilities concurrently during any 60-day period during the contract year. The UST Program funded twenty-six (26) Tier II assessment sites during the scope of this contract. DHEC reserves the right to alter the number of sites (either over or under the previous work level). Additionally, it is understood that sites may be in clusters or may be isolated sites throughout South Carolina not in proximity to other sites previously awarded. The schedule for performing the work will be a mutual agreement between DHEC and the lowest responsive and responsible bidder(s). Assessment activities may include definition of releases where only initial assessment activities have been conducted (IGWA and/or Tier I) as well as facilities that a Tier II Assessment has been previously conducted but for whatever reason (dry wells, plume migration) the plume is no longer defined. If the number of releases that require assessment within a 60-day period exceed the ability of the lowest bidder



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that was awarded the contract and that certified contractor agrees they cannot successfully complete the new work within the required timeframe, the next lowest bidder will be offered the new work. DHEC reserves the right to determine the schedule and the number of sites per month for each successful bidder. Also, DHEC reserves the right to cease operation of the environmental investigation(s) at any time.

5. Contractor(s) must agree to make positive efforts to employ women, other minorities and minority owned business.
6. Deliver or mail the Tier II plans to: SCDHEC, Underground Storage Tank (UST) Program, 2600 Bull Street, Columbia, SC 29201, Attn: Arthur Shrader. Deliver or mail the Tier II Report to include any screening data to: SCDHEC, Underground Storage Tank (UST) Program, 2600 Bull Street, Columbia, SC 29201, Attn: The project manager that signed the cost approval letter. A successfully completed report will contain all the elements identified in the specifications for the Tier II Assessment in the requested format. On or before the due date established in the Notice to Proceed, one paper copy and one electronic copy on a CD-rom or DVD of the report per facility must be delivered to the above address plus an abbreviated copy of the report the tank owner, the tank operator, and each property owner with a monitoring well installed or sampled on their property. The electronic copy will be on a CD-rom or DVD and include one .pdf copy of the entire report plus contain text as a Microsoft Word file, tables as a Microsoft Excel file, and figures as an Adobe .pdf file and an AutoCAD file. The UST Program may request additional abbreviated paper copies of the report to provide to other adjacent property owners. An abbreviated report will consist of the Tier II text or narrative portion, tables, and the figures showing the extent of CoC. Property tax information is not considered part of the abbreviated report. A typical abbreviated report would consist of approximately 15 pages of text, three tables, and ten figures. If the plume is not defined, the contractor will remobilize and continue work until the plume is defined with no interim payments.
7. Deliver or mail the Tier II invoices to: SCDHEC, Underground Storage Tank Program, 2600 Bull Street, Columbia, SC 29201, Attn: Financial Section. Invoices should be delivered upon completion and submittal of the final reports and will be paid within approximately 90 days of receipt of the successfully completed technical report and invoice. If the plume is not successfully defined both horizontally and vertically the invoice will be returned and the site rehabilitation contractor will be required to fully define the plume. By submitting the invoice for payment by the UST Program, the contractor is certifying that all subcontractors have been paid. If a subcontractor(s) has not been paid, the invoice must indicate any unpaid subcontractor(s). Payment based on the submitted invoice forms will be provided to the awarded contractor. Invoices shall not be included as an appendix or enclosure with the report or findings.
8. All amendments to this solicitation shall be in writing from the DHEC Procurement Officer indicated on page 1 of this solicitation. DHEC shall not be legally bound by any amendment or interpretation that is not pre-approved in writing.
9. Questions or requests for information must be submitted in writing and received by December 15, 2008. After this date no further questions will be addressed. A written response to questions will be mailed to all requestors of the bid package. The questions may be faxed to E. Madison Winslow, Bureau of Business Management, fax number (803) 898-3505.
10. **MINIMUM REQUIREMENTS:** The report must describe the geology of the subsurface in the area affected by the release. The report must define the vertical and horizontal extent of petroleum Chemicals of Concern (CoC) released for the referenced facility and adjacent properties. All rehabilitation activities must be performed by a SCDHEC certified Class I site rehabilitation contractor as required by R.61-98. A class A, B, or C South Carolina certified well driller currently in good standing with South Carolina Department of Labor, Licensing & Regulation must direct installation and abandonment of all monitoring wells. A laboratory certified by SCDHEC for the specified parameters must perform all laboratory analysis. Laboratory and collection methods will be as defined in *Analytical Methodology for Groundwater and Soil Assessment Guidelines*. Investigative derived waste must be disposed of within 90 days of generation in accordance with applicable state and federal regulations. A qualified professional from the company or firm must sign and seal the Tier II Assessment Report, and their South Carolina PE or PG certification number and SCDHEC certified Class I site rehabilitation contractor number must be on the signature page of the report.
11. The bidder must provide a minimum of three (3) references in the spaces provided on **page 22** of this bid solicitation. References should include company name, contact person, telephone number, and a brief description of services



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provided. The State reserves the right to contact references. The references may be utilized in the evaluation and ranking of the bidders. Please do not list personnel from the UST Program as a reference.

12. The successful bidder(s) must submit a statement to indemnify the property owner, underground storage tank owner/operator and the State of South Carolina from and against all claims, damages, losses, and expenses arising out of or resulting from activity conducted by the contractor, its agents, employees or subcontractors.
13. A late fee of \$100.00/day (not to exceed 20% of the total cost of the job) may be levied for each day the report is submitted after the deadline established in the Notice to Proceed letter (typically 90 days). A completion incentive of 10% of the approved cost will be paid for a complete tier II assessment, complete report, and associated invoice received before the deadline as outlined in specification 24.
14. If the work cannot be completed as specified, the UST Program project manager must be notified immediately. A change in the report due date may be issued for work to continue if adequate justification is provided and the project manager is verbally notified within 24 hours of identification of the problem and within two (2) business days in writing.
15. AWARD: Award will be made to the lowest responsive and responsible certified site rehabilitation contractor whose bid meets the requirements for successful completion to the lowest overall bidder as it is deemed most advantageous to the State. The DHEC reserves the right to reject any and all bids that appear to be above customary and reasonable costs for the same scope of work or for prior performance history. Award may be made to one or more bidders, whichever is deemed most advantageous to the State. Award may take longer than fourteen days.
16. Within 15 days of award, the contractor(s) must submit a Health and Safety Plan, QA/QC Plan and Standard Operating Procedure (SOP) for review by DHEC. The contractor(s) must address how they plan on addressing standard field cleaning (documentation) procedures as well as design and installation of monitoring wells. The contractor(s) may reference guidance documents to include the Tier II Assessment Report and Appendix A and B, which are available on line at [http://www.dhec.sc.gov/environment/lwm/html/ust\\_guidance\\_docs.htm](http://www.dhec.sc.gov/environment/lwm/html/ust_guidance_docs.htm).
17. **NOTE . . . THE ONLY OFFICIAL CONTACT PERSON AT DHEC DURING THE SOLICITATION AND AWARD PROCESS IS THE PROCUREMENT OFFICER INDICATED ON PAGE 1 OF THIS SOLICITATION. BIDDERS ARE NOT TO CONTACT DHEC PERSONNEL LOCATED OUTSIDE THE BUREAU OF BUSINESS MANAGEMENT, PROCUREMENT SERVICES DIVISION.**

**SPECIFICATIONS for the Tier II Assessment:**

1. The successful contractor must complete a Tier II Plan form and map within 30 calendar days from the Notice to Proceed date for each facility listed. Once this contract is awarded, the successful contractor can obtain the file information necessary to prepare a plan at the offices of the Underground Storage Tank Program. The contractor shall mobilize within 30 calendar days of receipt of plan approval. In some cases, components of the assessment may be predetermined by DHEC and plan preparation by the awarded contractor will not be necessary. Mobilization for such a predetermined scope shall be within 30 calendar days from the Notice to Proceed date for that facility. If a risk classification 1 exists (potable well or surface waters impact by petroleum CoC), the SCDHEC may request the successful bidder to accelerate plan preparation to 15 calendar days for risk classification 1 sites.

DHEC will provide the contractor with a signed right-of-entry for the property where the UST system was located, the release occurred, or where the investigation will originate. The contractor is responsible for securing access to all other properties for which entry is needed. To facilitate rights-of-entry, DHEC will supply the contractor with a Letter of Introduction that states the purpose of the Tier II Assessment and why access is needed on adjacent properties. The letter requesting access to adjacent properties will at a minimum contain: the street address e.g. 146 South Main Street, tax map number, and map showing the location of the property being assessed and UST facility and its address. If problems occur, the DHEC project manager should be notified within 24 hours or the next business day. The contractor will provide the project manager, by fax or e-mail, the property owner information (name, address, and daytime telephone number) plus a summary of attempts that have been made to gain property access. The project manager may



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request that assessment activities begin to determine if access to all properties is required or appropriate. A Department of Transportation encroachment permit should be secured in the vicinity of each UST facility in case placement of monitoring wells within rights of way might be required. An additional round of screening and mobilizations may be approved if property access problems are encountered and an addendum to the original cost agreement is approved in writing. The contractor should send out property access letters and SCDOT encroachment permit applications as soon as the Tier II Plan is prepared to expedite access to off site properties. The biweekly project status update will highlight sites where the contractor is having access problems so the UST Program may become more involved. Interim invoices for sampling or well drilling are not anticipated for State Lead work under this contract. The Tier II Assessment report will include an appendix containing all tax map information for each adjacent property owner (name, current address, and telephone number), any private wells (irrigation or potable wells) located on the parcel as well as the monitoring well(s) by number that are installed on each parcel, a copy of the signed property access document, and the date the abbreviated report was mailed to each property owner.

2. The contractor must locate and document the status (potable, non-potable, active, and inactive) of all wells and other potential receptors (e.g. surface waters, wetlands, basements) within a 1,000 ft. radius of the facility or within 500 feet of the downgradient edge of the plume, whichever is greater, and depict each potential receptor on the relevant portion of the appropriate United States Geological Survey 7.5 minute topographic map. A separate table in conjunction with the site map will identify each receptor and provide the name, address, and telephone number for the property owner.
  - A. The contractor must note and record on a site vicinity map the current use of the facility and adjacent land (agricultural, residential, commercial, industrial, etc.). A copy of the appropriate sections of all applicable state, county, city, and other zoning ordinances, statutes, and/or regulations that apply to the area of investigation shall be provided. In addition, the names and phone numbers of any persons that have provided information pertaining to the land use or zoning ordinances, statutes, and/or regulations shall be provided.
  - B. The contractor must submit a copy of the applicable portion of a tax map. This map shall depict the location of the facility, all impacted properties, and all properties located adjacent to the impacted properties. The complete tax map number, name, address, and the daytime telephone number if available of the owner of each of these properties shall be provided. The map shall also depict the location of all permitted active and inactive underground storage tanks (UST), home heating oil tanks, and permitted above ground storage tanks (AST), and dry cleaning facilities within 1,000 feet of the site. The DHEC permit number or case number will be included for each facility for all regulated facilities or sites with a release of CoC managed by DHEC. The tax map and table with the name, address, telephone number, and well installed on each property will be included as an appendix to the report of findings.
  - C. The contractor must locate and depict on a 1-inch equals 50 feet scaled site map, to the nearest one-foot, all underground utilities (electrical, water, storm sewer, sanitary sewer, natural gas, telephone, cable TV, etc.) within a 500 ft. radius of the facility. The depth of each utility below the surface of the ground will be reported within the nearest  $\pm 2$  feet.
  - D. The contractor must immediately screen, using a properly calibrated field instrumentation, any receptor that may be potentially impacted (e.g., underground utility vault adjacent to the property line) within 1,000 feet. Any water supply well (public or private, active or inactive) within the plume or within 500 feet of the edge of the plume must be sampled immediately for laboratory analysis. If the analysis from a receptor indicates the presence of CoC, the contractor must immediately notify the DHEC project manager or the Manager of the Assessment Section at (803) 896-6394 and request approval for the collection of additional air or water samples as appropriate. The cost for analysis of samples collected without prior financial and technical approval may not be paid.
  - E. Provide the name, address and a contact telephone number for the owner of any potential receptors to the UST Program project manager or contact person by facsimile or e-mail within 48 hours of detection. The name, address, and daytime telephone number for the owner of each potable or irrigation well, as well as each municipal or public water supply intake, within a 1,000 foot radius of the site will be identified on the tax map or topographic map included in the report.
3. The contractor must complete a comprehensive risk survey and produce a map. This survey shall include, at a minimum, the locations and relative elevations of potential receptors, existing or former underground storage tanks and



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aboveground storage tanks, lines, dispensers, field screening points, monitoring wells, and other above and below ground structures. The DHEC permit or case number will be reported for all regulated facilities or sites with a release of CoC located within a 1,000-foot radius of the facility or 500 feet from the most down gradient well whichever is greater. The risk map will identify the potential receptors and other sources. Additionally, a table will be included with the report that lists the address of the each domestic or private well (irrigation or potable well) or facility that might be a source of CoC plus the owner's name, address, and telephone number. Additionally, the GPS location of all wells (private and monitoring) should be included as part of the Tier II Report. The locations shall be accurate to 15 feet or less.

4. The contractor must mobilize/demobilize to and from the facility to conduct site rehabilitation activities in the following manner:
  - A. The drilling or field screening equipment mobilization includes all costs to transport equipment, materials, and personnel to and from the site, and per diem. One unit may be allowed for direct push equipment mobilization and one unit may be allowed for drill rig mobilization. If mobilization of a different drill rig for installation of type III or rock wells is necessary, the contractor must submit a written request for an additional equipment mobilization. Additional units may not be billed for support trucks. If extenuating circumstances result in the need for an additional mobilization, DHEC will require written justification prior to issuing financial approval. Costs associated with additional equipment mobilizations due to ineffective field screening methods that fail to define the plume, installation of dry wells, or shallow wells that do not bracket the water table will not be allowed.
  - B. If it is necessary to take field screening or drilling equipment into areas with adverse site conditions such as extreme topographic relief, swampy conditions, or heavy plant growth, it may be necessary to clear a path and/or use all terrain field screening or drilling equipment. Roads shall not be cleared or vegetation cut without the prior written consent of the property owner. In those cases, an adverse terrain equipment mobilization rate may be added to the standard equipment mobilization. The adverse terrain mobilization includes all personnel, per diem, equipment, and materials necessary to transport equipment to and from the site and costs associated with clearing a path, using all terrain field screening or drilling equipment, and restoring any and all affected areas to prevent erosion and repair any damage to the satisfaction of the property owner. Adverse terrain mobilization will not be paid without prior written Department approval. The rate shall be designated on the Assessment Component Pricing Agreement at the end of this solicitation.
  - C. Personnel mobilization includes all personnel, per diem, equipment, and materials necessary to transport personnel for completion of site activities that do not require mobilization of heavy equipment such as drill rigs. Certain components (plan preparation, receptor survey, subsequent sampling events, aquifer characterization, free product recovery rate tests, subsequent survey, and disposal) may require a personnel mob/demob if not in conjunction with other field activities. Components must be scheduled concurrently such that unnecessary mobs/demobs do not occur (e.g., aquifer testing can be completed during the same mobilization event as ground-water sample collection; a receptor survey can be completed during the same mobilization event as plan preparation; repair of monitoring well pads can be completed in conjunction with new well installation). The number of personnel mobilizations must be proposed in the plan and the components to be completed during each mobilization must be identified. Any mobilizations not approved with the initial plan approval and notice to proceed must be justified in writing and receive prior financial approval. If the professional that will oversee field activities is not associated with the firm or company conducting the field activity (not a financial or familial relationship) and not mobilizing from the same general address, a personnel mobilization shall be allowed in addition to the equipment mobilization.
5. If the UST site possibly contains additional UST, the depth to bedrock has not been previously determined, or location of fracture traces is necessary to define the site geology, a geophysical survey will be requested. One comprehensive geophysical survey will be allowed per Tier II Assessment for surveyed areas up to 250,000 square feet (500 x 500 feet). Additional geophysical survey costs will be considered only if the area exceeds 250,000 square feet and prior cost approval is obtained from the Department. The geophysical method selected by the contractor (ground penetrating radar, electromagnetic methods, seismic methods or magnetic methods) will be determined based on the purpose of the survey, expected geological conditions from adjacent sites, and effects of cultural interferences at the site (e.g. concrete



or asphalt cover, buildings, fences and power lines). The results of the geophysical survey will include a map scaled to 1-inch equals 50 feet and north oriented toward the top of the page unless prior approved is received from the project manager. A series of data transects (cross sections), at a minimum of 25 feet apart across the site will be included as part of the Tier II Assessment report. The geophysical report will be provided to the project manager with other screening data to determine the location of USTs, extent of free phase product, define site geology to include lenses, and locations and depth below ground surface of bedrock. The geophysical survey will include a paper copy of the findings, as well as an electronic copy of the findings and will include text as a Microsoft Word file, any tables as a Microsoft Excel file, and a figure as an AutoCAD and .pdf files plus the information will be included in the .pdf copy of the entire report on a CD-rom or DVD.

6. If delineation of the extent of impacted vadose zone soil has not been completed previously, it will be necessary to collect soil samples for laboratory analysis from borings advanced around the underground storage tanks, every 10 feet along product lines, and at each dispenser island. These soil borings shall not extend below the groundwater table. Soil samples should be collected at a maximum of five-foot intervals during boring advancement. Based on the organic vapor concentrations detected, the method of sample collection shall follow EPA method 5030B (high-level >200 ug/kg) or EPA method 5035 (low-level <200 ug/kg) protocols, as appropriate. The number and type of sampling containers, weighing of samples in the field, use of preservatives, and holding times must be in accordance with SW 846, Test Methods for Evaluating Solid Wastes. Each soil sample with the highest screening value shall be prepared for shipping (sample label, hermetically sealed sample container, chain of custody prepared, stored on ice, etc.) and sent to a South Carolina certified laboratory. The sampling logs shall note the location and type of each sample submitted for analysis. The cost shall include all equipment, materials, on-site personnel time (i.e., subcontractor and supervising professional), sample preparation, and sample shipment associated with the advancement of temporary soil borings, and collection of soil samples in accordance with *Analytical Methodology for Groundwater and Soil Assessment Guidelines*. The soil sample from the interval exhibiting the highest concentration will be sent to a South Carolina certified laboratory for analysis, and the soil boring will be abandoned with neat cement grout as discussed in specification 7. Dry grout or bentonite pellets or chips will not be used for abandonment of a boring. A soil sample collected from less than one foot below the ground surface and above the water table will be analyzed for total organic carbon if requested. Analytical costs are not included in this component. The per-foot rate does not include cost associated with drill rig mobilization/demobilization; a separate rate for this cost is allowed as discussed in Specification 4.
7. The contractor will utilize a field sampling technique (vapor or water sample collection) and analyze each sample in the field with an appropriate screening methodology. The method for sample collection and the field screening technique (FST) shall be included in the required Standard Operating Procedure document. The field screening shall adequately delineate the horizontal and vertical extent of the petroleum constituents in soil and groundwater during one direct push/drill rig mobilization. The contractor shall propose an appropriate technique for each site in the plan. The chosen field screening technique must be calibrated to the contaminant being investigated, e.g., gasoline, and must be calibrated across the expected range of detection. The landowner, project manager, and the appropriate EQC Region contact will be provided 48-hour notice of temporary well installation activities. It is recommended that notification be in writing by e-mail or fax to provide a record of the notification. The results of the field screening and geophysical survey will be used to optimally locate and reduce the number of permanent monitoring wells while fully defining the horizontal and vertical extent of petroleum CoC. Groundwater and soil profiling will usually begin at the source of the release. Contractors are encouraged to screen and collect groundwater samples from existing shallow wells, deep wells, and down gradient screening points for laboratory analysis to ensure the entire plume is delineated. If the analytical field screening method indicates the presence of petroleum Chemicals of Concern (CoC), sampling should continue outward at each profile point. Multiple soil and groundwater samples will be collected from various depths at each profile point to determine the vertical extent of the CoC. Duplicates of all field-screened samples will be collected for confirmatory analysis by a SC certified laboratory; however, usually not more than seven of the duplicate samples from the edges of the plume (horizontal and vertical) will actually be analyzed. **In an effort to allow the contractor flexibility, and realizing that one method or group of methods is not always the most effective or efficient, the UST Program has tried to allow the contractor to propose the best assessment method(s) for characterizing complex geology, as well as fractured or crystalline rock. Additionally, new technologies (i.e. Flexible Liner Underground Technologies liner [FLUTE<sup>TM</sup>]) are quickly becoming available and are much more technical and cost effective. The UST Program is receptive to contractors using innovative technologies that can obtain the**



**desired results.** Photo-Ionization Detectors or Flame Ion Detectors should be used with caution. They are chemical non-specific and cross-react with other chemical compounds that may be present. In addition, high concentrations of compounds are required to elicit a response from the instruments and they are not reliable in monitoring levels in water because of interferences from water vapors. Geophysical survey, profile screening locations, profile sampling results, any laboratory analysis, and proposed permanent monitoring well locations are to be faxed or e-mailed to the appropriate DHEC project manager for review prior to the installation of permanent well locations. Please note that the contractor is still responsible for recommending well locations and is technically responsible for their work (installing shallow monitoring wells that bracket the water table, correct screening methods, accurate location of screening points and wells in relation to existing features and utilities).

Prior to advancing the first field screening point, the depth to groundwater shall be gauged in all existing monitoring well(s). The initial field screening points should be installed in a radial pattern beginning in the immediate vicinity of the suspected source(s) and geophysical survey data. Shallow screening points shall not be initially advanced deeper than five feet below the water table as gauged in existing wells. Screening should concentrate on defining the extent of free phase product, if present, edges of the plume laterally (to include up gradient of the source), between the source and receptors (wells, surface waters, and utilities) to determine if a preferential pathway exists, and vertically to define strata with high conductivity (sand stringers, gravel beds). Water samples shall be screened for petroleum constituents at five-foot intervals and at any discernable changes in soil type (based on either well logs from previously existing monitoring wells or based on significant changes in the advancement rate of the field screening points) with a properly calibrated field-screening instrument. Samples should be collected and screened at 25-foot horizontal intervals and at five-foot vertical intervals until two consecutive samples at or below detection limits are obtained or until boring refusal is encountered. Deep screening below the water table should be initially conducted in the areas with the highest values for horizontal delineation, downgradient of the area defined by horizontal delineation to document if the plume is diving or moving into a different unit, between the source and receptors (wells, surface waters, and utilities) to determine if a preferential pathway exists, and in strata with high conductivity (sand stringers, gravel beds). For example, if the highest concentration of petroleum is present in a sand stringer located eight feet below the water table, then additional field screening points shall target that geologic interval. A second deeper field screening point would be installed near the down-gradient edge of the plume to confirm that the plume has not moved into this sand stringer or a deeper high conductivity unit. A representative soil sample from each water-bearing zone in the source area and at the compliance point will be submitted to the laboratory for sieve analysis.

**Standard screening method** will ensure the extent of CoC is defined by submitting selected vertical and down gradient groundwater samples to a certified laboratory for analysis. To be considered defined, the laboratory analysis should provide results at or below the Risk Based Screening Level (RBSL) for each CoC. The screening and laboratory results for BTEX, naphthalene, MtBE, 1,2 DCA, and EDB as applicable will be submitted to the appropriate project manager before permanent monitoring wells are installed.

**Alternative screening method** will use an on-site semi-quantitative analytical method(s) that is capable of detecting benzene, naphthalene, MtBE and EDB without sending screening sample to a certified laboratory. The successful contractor will be required to use an alternative method (on site analysis) for all risk classification 1 releases. Additionally, the Department may direct this screening method be used at other releases. The method(s) will be capable of providing real-time on site data; i.e. the data is obtained as borings are advanced or within 30 minutes of sample collection. Typical instrumentation includes, but is not limited to, field gas chromatography and/or other methods that would provide detection limits at or below the Risk Based Screening Level (RBSL) for benzene, naphthalene, MtBE and at or below five parts per billion for EDB as a minimum. The method(s) used and the results will be submitted to the appropriate project manager to determine well locations. The report will include rush laboratory results at or below the RBSL for EDB if preapproved. If an on site laboratory is used, a personnel mobilization and equipment mobilization for the laboratory plus the appropriate analytical cost may be added to the screening per foot cost.

**Fractured Rock screening** will use methods to identify individual fractures or zones containing a series of fractures after the surface geophysical survey is completed. Fractures within a borehole or well may be identified by use of calipers, gamma logs, temperature sensors, flow sensors, video cameras or other in-bore methods and techniques. The rate includes all costs for locating and reporting all fractures 0.01 foot or larger, the orientation of the fractures in an individual boring, and collating fractures over the entire site if multiple wells or borings are logged at the site. The method(s) used and the results will be submitted to the appropriate



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project manager to determine screen locations in the core hole or if the core hole should be abandoned. This information will be included in the Tier II report.

A cost for obtaining and analyzing a field screening sample for each media (vapor or water) shall be provided that is inclusive of costs for all personnel (to include oversight by a geologist or engineer), equipment and materials associated with the advancement of temporary borings/wells in accordance with the S.C. Well Standards and Regulations (R.61-71), collection and quantification of samples, and abandonment of the field screening points. If multiple methods or technologies will be used (e.g., test kits and gas chromatography for the alternate screening method; or calipers, gamma log, and video camera for fractured rock) a single cost per foot will be charged regardless of the number of method(s) or technologies employed. The selected technology shall be identified in the SOP and further discussed in the plan. A cost for each screening method will be provided in the "Bidding Schedule Calculations" section. An additional cost for a field screening rig mobilization will be allowed as discussed in specification 4. A separate cost will be paid for each sample depth (i.e., if a soil sample is collected from a geoprobe point at 10 feet below ground surface and a water sample is later collected from 20 feet below ground surface from that same point, payment will be based on each sample depth, one payment for 10 feet and an additional payment for 20 feet. No separate cost for abandonment will be allowed). A single cost will be paid for the length of a core hole.

The contractor may choose the screening method or combination of methods that best accomplishes the goal of accurately defining the horizontal and vertical extent of petroleum CoC in soil and groundwater. The Department will not pay for on-site screening methods that produce erroneous data. Additional mobilizations resulting from a failure to completely delineate the horizontal and vertical extent during the initial mobilization will not be compensated.

Abandonment of temporary soil borings, field screening points and core holes shall be by forced injection or tremie grouting of neat cement from the termination depth of the boring/point to within three inches of the surface under the supervision of a South Carolina certified well driller. Borings cannot be abandoned with dry bentonite chips or dry pellets. The upper three inches of each boring that is not completed as a monitoring well shall be filled with a material comparable to the surrounding material. For example, an asphalt plug should be placed in the upper three inches of a boring advanced in an asphalt parking lot, and a native soil/grass plug may be used in the upper three inches of a boring advanced in a grassy area. If for any reason the property owner requests a variance, the project manager will be contacted within 2 business days of the request and the request will be documented in the report of findings.

The contractor(s) performing work under this contract shall provide the following information in their QA/QC plan:

- FIELD INSTRUMENT – The brand name, model number, and serial number for each instrument utilized.
- FIELD CALIBRATION – Written methods for the daily field calibration of the instrument(s) used. This shall include the method of calibration, the concentration(s) and composition of the standard. This calibration shall be accomplished using a standard indicative of the constituents being tested for (i.e., if analyzing for gasoline, calibrate the instrument with gasoline). This allows the method to provide measurements of the actual concentration of the subject constituent (ppm TPH as Gasoline) instead of span gas equivalents.
- ALTERNATIVE FIELD ANALYTICAL METHOD(S) – This shall include protocols for sample collection and handling, as well as a detailed description of the field analysis or method for expedited or risk classification 1 situations. This also includes information pertaining to the basis for the method and how it works. Additionally, a third party certification or a recent pilot study and/or demonstration may be requested by the UST Program.

8. The contractor will install permanent monitoring wells. The property owner, project manager and the appropriate EQC District contact will be provided 48 hours notice of well drilling activities. It is recommended that notification be in writing by e-mail or fax to provide a record of the notification. The number and location of permanent monitoring wells shall be based on the field screening results. The wells shall be installed so the site geology is recorded as well as horizontal and vertical extent of the CoCs is delineated and for the monitoring of all potential exposure pathways. The contractor is expected to define the extent of the CoC to the maximum extent possible. Unnecessary monitoring wells should not be installed. However, monitoring wells will be required to define the free product and dissolved plumes both horizontally and vertically. An appropriate number of shallow and deep monitoring well pairs will be installed



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along the centerline of the plume to provide data for fate and transport modeling and monitor petroleum CoC. A deep or pit cased monitoring well should be installed between the source and each supply well (potable or irrigation well) with potential for impact by CoC to act as a compliance point. Installation of deep wells without prior screening to the depth of the proposed wells is not a technically sound practice. A per-foot rate shall be proposed that includes all personnel, equipment, supplies, and supervision associated with the installation and development of wells. This price will include transportation of water for drilling, a compressor, generator or other equipment needed to install the well(s). A separate per-foot rate shall be proposed for the installation of deep telescoping (i.e., pit cased) monitoring wells and for rock wells. The cost for installation of smaller diameter prepacked push monitoring wells or 4-inch product recovery well may be different than the cost for a 2-inch ID well. A deep well that is installed outside the source area and does not contain a confining layer may not need an outer casing since no hydrologic zone will be segregated. To classify and report the site geology, split spoons should be taken and the results reported for all deep wells. A representative soil sample from each unconsolidated water-bearing zone in the source area and at the compliance point will be collected and submitted to the laboratory for sieve analysis to aid in soil classification and determination of groundwater velocity. If a water table or deep telescoping monitoring well is advanced into competent rock, the pit casing will extend into the rock and entire depth of the well shall be billable at the rock-drilling rate. The per-foot rate does not include costs associated with drill rig mobilization/demobilization or costs for laboratory and sieve analysis of the soil or groundwater samples. A separate cost will be allowed to install a second or third screen at additional intervals below the water table to allow for sampling from separate areas or zones. A packer or other seal must be installed below each screened interval to ensure each zone is hydraulically segregated. For example, if the well will be completed for sampling in three separate zones with screens from 95 to 100 feet, 65 to 70 feet, and 35 to 40 feet the contractor would be compensated for installing a 100 foot well at the appropriate drilling rate plus installation of 110 feet of additional sampling ports for the nested piezometric. **The contractor will not be reimbursed for installation of dry wells, and may not be paid for shallow wells that do not properly bracket the water table.** Roads will not be cleared or vegetation cut without the prior written consent of the property owner. The drilling rate will not be modified for adverse terrain. Please see specification 4 for compensation associated with adverse terrain.

- A. Monitoring wells must be installed under the direct supervision of a licensed South Carolina Certified Well Driller and in accordance with the SC Well Standards and Regulations (R.61-71) as well as licensing criteria and regulations of the SC Labor, Licensing & Regulation Board.
- B. A two-inch inside diameter (ID) PVC casing and screen shall be used for the water table monitoring wells, unless a written variance is granted by the DHEC project manager prior to installation. The well screen length should be a minimum of ten feet for shallow wells. However, if the contractor is aware of significant groundwater level fluctuations, a longer screen length may be necessary and shall be specified in the plan. Well screens for all water table monitoring wells must bracket the water table and approximately one-half of the well screen should be completed below the water table.
- C. The filter pack and screen slot size will be at the discretion of the contractor and the certified well driller. Casing and screen must be threaded, the use of PVC glue or O-rings will not be allowed. The filter pack and screen slot size must be appropriate for the formation to prevent sedimentation in the well. The filter pack must be installed, using the tremie method, adjacent to the screen. For 4-inch recovery wells a 15-foot screen should be considered with a 0.15 slot screen. If prepackaged geoprobe monitoring wells are approved for permanent shallow monitoring wells, the monitoring well internal diameter will be 1.25 inch or greater. A bentonite seal, filter pack, and grout must be placed in accordance with the SC Well Standards and Regulations (R.61-71). A minimum of two inches separation must be left between the top of the well casing and the steel manhole cover. The data plate will have the data etched or stamped (not written with a pen) into the plate and the plate will be anchored inside the well in a conspicuous location or the well pad.
- D. The casing stick-up length (within the manhole) must be such that it can prevent water entry into the well if the manhole seal were to fail. All wells installed in driveways, parking lots, high traffic areas, and landscaped areas must be terminated at grade, unless otherwise directed by the Department or requested by the land owner. All wells installed in the brush or woods, open or plowed fields and other areas where location of the wells may be difficult, shall be completed inside a 4 inch or 6 inch diameter steel protective casing, unless otherwise directed by the Department. The steel protective casing shall extend at least two feet into the ground and extend above ground surface at least two feet.



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- The well data plate shall be attached to the outside of the steel protective casing. Four six-inch diameter protective posts shall also surround any wells installed in agricultural fields. All wells must be equipped with a cover, locking well cap, and data plate.
- E. Monitoring wells will be installed to define up gradient, down gradient and along the perimeter of both the free-phase and dissolved CoC. Monitoring wells should be installed based on screening results. Perimeter wells should have groundwater analysis below the risk based screening level for each CoC. A minimum of two vertical-extent wells shall be proposed unless the vertical extent of the contamination can be reasonably determined, or estimated, by another method, or the geology precludes the potential of vertical migration of the CoC. These deep wells are to be paired with water table wells (preferably the water table well with the highest concentration of CoC and other water table wells in the down gradient portion of the plume) to determine vertical extent of the CoC and the vertical hydraulic gradient. A shallow well will typically be installed adjacent to a surface water body. A shallow and deep monitoring well will typically be installed between the source and all private wells to better delineate the possibility of future impact to the receptor. The diameter of the deep well borings must be such that installation of the telescoping monitoring wells can easily be accomplished. A six-inch ID well casing shall be advanced at least five feet deeper than the bottom of the adjacent water table well screen or to the first confining unit, whichever is less. The annular space around the casing must be pressure grouted to the surface in accordance with the South Carolina Well Standards and Regulations and allowed to cure for a minimum of twenty-four hours. The boring must then be advanced through the inside of the six-inch ID well casing. Data from the deep field screening points shall be used to determine the appropriate depths of the vertical extent monitoring wells. A sand packed two-inch ID well casing shall be installed inside the six-inch ID well casings. Well screen lengths shall be five feet unless prior approval is received from the project manager. A soil sample will be collected from the unsaturated zone and from each water-bearing zone will be collected and submitted for sieve analysis. Costs for collection of screening samples will be considered included as part of the well installation rate; however, laboratory analysis or sieve analysis may be invoiced separately.
- F. Screening points or temporary wells will be numbered consecutively beginning with SB-1. Any temporary well where a groundwater sample is collected will be consecutively numbered beginning with GW-1. Shallow monitoring wells will be numbered consecutively beginning with MW-1 or picking up after the highest number from previously installed monitoring wells. Deep monitoring wells will be numbered consecutively beginning with DW-1 or picking up after the highest number from previously installed deep monitoring wells. If monitoring wells associated with an adjacent facility are sampled as part of an assessment, those well will be prefixed with two letters corresponding to the name of the adjacent facility. eg. If the adjacent facility is Mikes Mart #3, then the wells associated with the release at the adjacent facility would be labeled MMMW-4, MMDW-2 to differentiate them from MW-4 or DW-2 associated with the release at the facility. Irrigation, private, or domestic water wells will be numbered consecutively beginning with WSW-1. If several wells are installed to define a specific intermediate or deep strata, they should be similarly labeled to identify all are screened in the same zone eg. IMW-1, DDMW-1. If for any reason a well is abandoned and a new well installed to replace that well, the replacement well will have an "R" after the well number e.g. MW-1R, DW-1R. However, monitoring well numbers used in a prior report will not be changed e.g IGWA well will remain IGWA. The old monitoring well numbers will be used in the tier II report text, figures, and tables to preclude confusion between assessment reports.
- G. If wells and or well pads installed by the awarded contractor during the current contract period fail prior to the end of the current contract period under normal usage conditions, than the awarded contractor is responsible for the replacement at no cost to DHEC.
- H. All soil cuttings, free product, and ground water generated during boring construction and monitoring well development/purging shall be stored in labeled containers and clearly labeled as to the date of generation and contents. Wherever possible, soil and groundwater will be segregated by activity if fewer than 5 tons (approximately 15 drums or less than a total of 200 feet of shallow wells and 100 feet of deep pit cased wells) of soil is anticipated. **The cost of IDW associated with well installation may be included in the per foot rate for well installation.** Based on laboratory analysis, soil and



groundwater with laboratory values below risk based screening levels should be disposed of on site with the concurrence of the property owner. Under no circumstances will purge water with detectable levels of CoC, soil cuttings, or water used to decontaminate augers with sediments be discharged into a storm drain or surface water body. The cost per gallon for fluids and per ton for soil and cuttings will include the container, loading and transportation to the approved disposal facility. Disposal costs for investigation derived wastes are based on the volume of waste produced, not on the type of container utilized. All investigation derived wastes will be removed from the site within 90 days and the disposal manifest(s) will be included as part of the Tier II Report.

- I. If bedrock is encountered during screening or installation of monitoring wells, the contractor will propose to the appropriate project manager installation of a casing from the surface to the top of the bedrock and drilling into the bedrock and extracting an oriented core. The core will be used to determine the location and orientation of fractures in the rock. To reduce the possibility of cross contamination, tests to determine the size of fractures and flow velocities should be conducted as soon as practical. The coring cost will include logging of the core, reporting the percent of core recovered, location and orientation of fractures, and correlation of these fractures to adjacent wells if installed. The purpose of core drilling is to obtain an oriented core to define the conditions in fractured crystalline rock. The core holes should be vertical to best define the strata and fractures. The recovered core can be evaluated on site or the core can be evaluated by an off-site laboratory by paleomagnetic, magnetic or nonmagnetic methods. The contractors for this and the previous contract sent the recovered core samples to another laboratory that interpreted the core and provided a report that was included as an appendix in the Tier II Report. Costs to convert a portion to a monitoring well (install sampling ports), down core hole screening to further define fractures, conducting hydraulic testing of discrete zones, and sampling are considered separate work scopes and are not included in the coring per foot price. A separate cost will be allowed to install screening at various intervals to allow for sampling from discrete fracture zones. A packer or other seal must be installed below each screened interval to ensure each fracture zone is hydraulically segregated. For example, if the core hole will be completed for sampling in three separate zones with screens from 245 to 250 feet, 195 to 200 feet, and 145 to 150 feet the contractor would be compensated for installing a total of 600 feet of multi-sampling ports. Since there will be a limited number of cored wells to define the fracture pattern and hydraulic properties, there may be a need for installation of additional monitoring wells in the rock by air rotary or other drilling methods.
- J. The well development method, chosen by the contractor, shall be capable of removing enough solids, drilling fluids, and water to provide a representative sample of the aquifer being assessed.
- K. The static water level in each well will be measured after the well has been properly developed and allowed adequate time for the water level to stabilize. The depth to water (or product) shall be determined using equipment capable of detecting the free product/water interface (prior to development) with an accuracy of 0.01 foot or 1/8 inch. If free product is present, the apparent thickness shall be measured by first measuring the depth to groundwater and then the depth to the top of the product.
- L. All wells being sampled for the first time, or wells having a screened interval that extends below the water table, must be purged prior to sample collection. The purge waters shall be measured for pH, specific conductance, and temperature. Purging is considered complete once the ground-water temperature and pH measurements have equilibrated. All measurements must be submitted to DHEC in the Tier II report.
- M. Any groundwater-monitoring well that was installed prior to the date of the notice to proceed for the Tier II assessment with a screen that brackets the water table does not need to be purged unless otherwise requested by the project manager before measuring the level of dissolved oxygen and collecting a groundwater quality sample.

- 9. Prior to collecting a groundwater quality sample from each well without measurable free product, the dissolved oxygen content shall be measured. The results should be included in the field data and analytical data tables in the Tier II report. Collect one groundwater quality sample per well following the initial installation of the monitoring wells. The sampling logs should note the location and type of each sample submitted for analysis. Each groundwater sample will



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be prepared for shipping (sample label, sealed sample container, no air in the sample, chain of custody prepared, stored on ice, etc.) and shipped to a certified laboratory. The cost shall include all equipment, materials (bailer, PDB harness), on-site personnel time, sampling preparation, and shipment. Travel time should not be included in the per sample rate as a personnel mobilization may be added to this component as discussed in specification 4. Collection of samples may be by bailers or Passive Diffusion Bags (PDB). If PDB is used, the bag must remain in the well for a minimum of 15 days or longer if recommended by the manufacturer. Additionally the manufacturer must certify that the PDB is capable of collecting a representative sample of all CoC required by the project manager. Typically PDB will be used in core holes and other open wells to determine CoC from various zones in the well.

10. If free phase product is encountered in any well, a groundwater sample should be collected below the free product. The following procedure will be used: Measure the thickness of free product. Using a bailer or pump remove the free product, being as careful as possible not to mix product and groundwater. As soon as all product is removed, collect a groundwater sample with a clean bailer minimizing emulsification or incorporation of free product into the sample container. If product cannot be removed, a bailer should be used to collect a product and groundwater sample. The water below the product should be decanted by use of a syringe or other method.
11. Each soil sample collected as part of specification 6 and 7 should be analyzed for appropriate parameters in accordance with the *Analytical Methodology for Groundwater and Soil Assessment Guidelines*. Typically BTEX, naphthalene and PAHs, if not previously sampled, will be requested. A laboratory holding current certification by DHEC for the relevant analysis must perform all laboratory analysis.
12. One groundwater quality sample from each well shall be chemically analyzed in accordance with the *Analytical Methodology for Groundwater and Soil Assessment Guidelines*. Typically all wells will have groundwater analyzed for Benzene, Toluene, Ethylbenzene, Xylenes, Naphthalene, Ethyl Dibromide (EDB), 1,2 Dichloroethane (1,2 DCA), Nitrates, Sulfates, Ferrous Iron, Methane, and Lead. If there is a recent release or the USTs are still in operation, Ethanol and Oxygenates (Methyl tert-Butyl Ether (MTBE), Ethyl Tert-butyl Ether (ETBE), Tert-amyl Methyl Ether (TAME), Tert-butyl Alcohol (TBA), Tert-amyl Alcohol (TAA), Tert-butyl Formate (TBF), Ethyl Tert-butyl Alcohol (ETBA), and Di-isopropyl Ether (DIPE)) may be requested. Ethanol analysis in groundwater may be requested with a detection limit of 25 parts per billion. If naphthalene is present other PAHs may be requested (Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, and Dibenzo(a,h)anthracene). If the release is associated with a waste oil UST, analysis for RCRA metals (Arsenic, Barium, Cadmium, total Chromium, Mercury, Selenium, and Silver) will also be required for soil and groundwater. Additionally, for selected wells the project manager may request the groundwater sample be analyzed for trimethyl benzene, Butyl benzene, and Isopropyl benzene. A laboratory holding current certification by DHEC for the relevant analysis must perform all laboratory analysis. The UST Program will no longer reimburse costs for oxygenate analysis for any laboratory that is not certified for these chemicals of concern and the contractor will be required to collect another sample for laboratory analyses at no cost to the SSUPERB Account. Laboratory data, field sampling logs, chain of custody forms, certificates of analysis, and the lab certification number will be included in an Appendix of the report. The cost agreement and approval letter should be always checked to verify approval of the appropriate chemical compounds and metals for analyses.
13. A representative air sample should be collected from the most likely place for gasoline vapors to enter the building (crack in the foundation, wall closest to the UST basin), areas with poor ventilation that would trap vapors (basement, bank vault, crawl spaces under the building), as well as the most commonly inhabited areas (bedrooms, living rooms) into a summa canister to preclude loss of volatiles. Volatile analysis should be by Toxic Organic 15 (TO-15) and/or ASTM Designation D5466-01, Standard Test Method for Determination of Volatile Organic Chemicals in Atmospheres (Canister Sampling Methodology). BTEX and naphthalene should be analyzed using EPA Method 8260B within 24 hours of collection.
14. There are a number of recognized methods for hydrocarbon fuel identification, such as High Resolution GC/FID (PIANO), Fuel-type apportionment by GC/MS, and Full scan by GC/MS. As the age and type identification is an interpretive result, the UST Program does not specify a specific method; however, the laboratory providing the results should have some experience in type and age identification of fuel and be able to defend the assertions made in the identification. The age determination should be +/- four years based on degradation of the product. The UST Program



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understands that a fresh sample from the facility may be required in addition to the sample collected from the monitoring well. Suggested laboratories providing fuel identification include: Torkelson Geochemistry, Inc., 2528 South Columbia Place, Tulsa, OK 74114-3233 tel: 918-749-8441 and New Fields Environmental Forensics Practice LLC, 100 Ledgewood Place, Suite 302, Rockland, MA 02370 tel: 781-681-5040.

The laboratory QA/QC process must meet the current levels as established by DHEC laboratory certification. All laboratory results must be from a South Carolina Certified Laboratory and within acceptable tolerances based on the EPA promulgated method in SW-846. The rates for each analytical method to be presented on the Assessment Component Pricing Proposal will reflect a typical laboratory turn-around time of one or two weeks. A laboratory cost multiplier for rush turn-around shall also be designated for rare cases (generally emergencies) requested by the Department and for screening results. Rush analysis will be defined as laboratory analysis provided within 24 hours or the next business day. Any additional cost for rush turn-around will not be paid unless prior approval is requested in writing obtained from the Department. **The elapsed time between the collection date of the groundwater samples and the received date of the report will be no more than 45 days.** If this timeframe is exceeded, the contractor will submit an updated comprehensive groundwater sampling report for all wells and surface water at no additional cost.

15. The contractor will describe aquifer characteristics. The cost shall include all equipment, materials, and personnel to complete these activities. A cost for each option shall be provided in the "Bidding Schedule Calculator" section; however, the contractor shall propose in the plan (see specification 1) the aquifer characterization method(s) that are appropriate for the geology of the facility. In cases where a pumping or other test cannot be conducted (e.g., well yields are too low), three separate slug tests shall be conducted in different on-site wells (two shallow wells and one deep well). All wastewater generated during aquifer tests shall be properly disposed. The disposal cost shall be proposed separately (see specification 21 below).
- A. Slug Tests - Data shall be evaluated in accordance with industry standards (Hvorslev, Bower and Rice, etc.). Raw field data, calculations, and a UST Program Summary of Slug Test form, at a minimum, will be included in the Tier II report. Slug tests will be conducted on shallow, intermediate, and deep monitoring wells. Slug tests should be conducted on wells that represent site geology. Slug tests will not be conducted on wells installed in the UST backfill or other disturbed areas. Data should be recorded until recovery is 90 percent or more.
  - B. Pumping Test - To ensure that the pumping test data is representative, the test should be conducted using a sufficient pumping rate and duration to stress the aquifer. Therefore, the pumping test should have a duration of at least six hours to a maximum of twenty-four hours based on site-specific data. Data will not be recorded on well installed in the UST backfill or other disturbed areas. Data shall be evaluated in accordance with industry standards and included in the Tier II report.
  - C. Flow Tests in fractured rock - For individual fractures or fracture zones that have been identified as part of the screening process. The contractor will use a series of packers or Flexible Liner Underground Technologies liner (FLUTE<sup>TM</sup>) to isolate various areas of a cored well and conduct tests to determine the hydraulic properties of a discrete fracture or fracture zone. The report will contain all data collected and the flow velocity for each fracture zone. The rate will include all cost associated with equipment to isolate each zone, instruments to record the data, data collection, data analysis, reporting, oversight of field tests and data analysis and other cost with determining groundwater velocity of each of these zones.
16. If free product is encountered in any permanent monitoring well, then a recovery test may be conducted to determine free product recovery rates and actual thickness for each well with measurable free product at 0.20 foot or greater. The proposed cost shall include all personnel and equipment necessary to perform the test. All wells with free product will be bailed down or pumped for a minimum of 15 minutes or until all measurable free product is removed from the well. The depth to groundwater and depth to product will be measured and recorded at a minimum of 30-second intervals for 45 minutes or until consecutive groundwater and product levels are the same for 5 minutes. The recovery data will be reported in a table and a graph depicting product recovery vs. time. Groundwater sample collection should be conducted prior to initiation of a free product recovery test to reduce the amount of emulsified product in the groundwater sample. In addition, a groundwater sample will normally be collected from below the product in conjunction with the comprehensive sampling event of all monitoring wells.



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17. The contractor may be requested by the Department (**not normally requested**) to calculate the site-specific target levels for each CoC in the vadose zone soil. The cost shall include all equipment, materials, and personnel to complete these activities. The Soil Leachability Model provided in the "South Carolina Risk-Based Corrective Action for Petroleum Releases" guidance document or available on disk through the SCDHEC Freedom of Information office shall be utilized unless an equivalent method is approved. If groundwater is less than 5 feet below ground surface, the contractor will not propose a soil leachability model. The name of the model(s) to be used shall be listed in the SOP (special condition 16).
18. The contractor may be requested by the Department (**not normally requested**) to predict the fate and transport of the CoC in the groundwater and in vapors away from the source area. A list of mathematical and computer models that the contractor proposes to use shall be included in the SOP. The cost for these activities shall include all equipment, materials, and personnel to complete these activities. A cost for options a and b (below) shall be provided; however, the contractor shall propose in the plan (see specification 1) the method most appropriate for the facility. The completion of a relatively simple mathematical and/or algebraic or semi-analytical expression is preferred where appropriate.
  - A. For mathematical and/or algebraic or semi-analytical expressions, the contractor should utilize Domenico's Fate and Transport Model provided in the "South Carolina Risk-Based Corrective Action for Petroleum Releases" document or equivalent model upon approval.
  - B. For Computer fate and transport modeling, the contractor should use common fate and transport models include BIOSCREEN, SOLUTE, AT123D, BIOPLUME-II, or equivalent model upon approval. For vapors, common models include Farmer, Thibodeaux-Hwang, SeSoil, Jury, Box, or an equivalent model upon prior approval by the project manager.
19. The contractor shall use historical data and information obtained during this scope of work to perform a Tier II Risk Evaluation if it has not been previously determined. This evaluation includes, but is not limited to, the establishment of exposure points, site-specific target levels (if modeling is preapproved by the UST Program and conducted by the contractor), and points of compliance and recommendations for future actions. This evaluation shall be performed in accordance with the "South Carolina Risk-Based Corrective Action for Petroleum Releases" document. The UST program project manager will approve the receptor that will be used for modeling if modeling is requested. Only one tier evaluation will be approved for each work scope.
20. The contractor will perform a subsequent survey to determine the top of casing elevations and the accurate location in relation to aboveground features on an existing survey plat. If a USGS Benchmark is not available within 300 feet of the facility, an assumed benchmark may be used but must be clearly identified on the map. Only one subsequent survey will be allowed per Tier II Assessment for surveyed areas up to 250,000 square feet (500 x 500 feet). Additional unit(s) of 250,000 square feet will only be considered if the area of new monitoring exceeds 250,000 square feet and prior approval is obtained from the Department. The Department will not pay for a subsequent survey in addition to the comprehensive survey during the same Tier II Assessment without prior approval. The wells will be located on a plat scaled to 1-inch equals 50 feet with north oriented toward the top of the page unless prior approved is received from the project manager. The survey or information provided by the contractor will be used to depict buildings, wooded areas, surface bodies of water and other significant features. If the maps do not contain sufficient detail to easily locate wells, the report preparation fee will not be paid. A South Carolina Registered Land Surveyor must perform the comprehensive survey. The surveyor's seal must be on any applicable maps. One comprehensive survey will be allowed per Tier II Assessment for surveyed areas up to 250,000 square feet (500 x 500 feet). Additional survey costs will be considered only if the area exceeds 250,000 square feet and prior cost approval is obtained from the Department. The survey plat will have a scale of 1-inch equals 50 feet and north oriented toward the top of the page unless prior approval is received from the project manager. The report will include a paper copy of the surveyed plat signed by the SC licensed surveyor, and the electronic copy of the report will include a copy of the plat as a separate AutoCAD file. To insure accurate locations, the UST Program suggests the comprehensive survey be conducted after all receptors are located and screening and well installation is completed. The GPS location of all wells (private and monitoring) should be included as part of the Tier II Report. The locations shall be accurate to 15 feet or less.
21. Proper management of investigation derived waste shall be the responsibility of the contractor. The contractor will sample, analyze, transport to a permitted facility, and dispose of any soil or wastewater generated in accordance with



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regulatory requirements within ninety (90) days of the date the waste is generated. If the derived soil and wastewater is generated from investigation of a waste oil UST, the UST point of contact must obtain prior approval for disposal from the Waste Assessment Section of the Bureau of Land and Waste Management. **The cost of IDW may be included in the per foot rate for well installation.** A cost for each option shall be provided; however, all disposal options may not be necessary at each facility. Soil and groundwater from different areas on the site should be segregated especially if screening results indicate that derived waste is not contaminated. Soil from parameter screening points, soil generated outside the source area located between the land surface and water table, as well as cuttings from perimeter wells should be clean. Laboratory analysis of the soil and groundwater collected as part of the screening or report preparation should be the basis for determination of whether derived soil or groundwater is "clean". No cost will be paid for disposal/treatment of soil or wastewater with CoC concentrations below risk based screening levels, as these items can be disposed on-site. The cost per gallon for fluids and per ton for soil and cuttings will include the container, loading and transportation to the approved disposal facility.

22. The contractor will repair damaged or missing items to previously installed monitoring wells as previously approved by the UST Program. This activity will include replacement of a cracked or broken well pad, replacement of the well vault, replacement of a missing well tag, replacement of the well cover, bolts, well caps, and locks. The request may include conversion of a pad mounted monitoring well to a stick up well to aid in well location for future sampling. A description of all monitoring repairs or conversions will be included in the report.
23. If the UST Program receives both the Tier II plan and one complete paper copy and two electronic copies (one complete .pdf copy and electronic copy of text, figures and tables) of the report and associated invoice that fully defines the extent of petroleum chemicals of concern in fifteen (15) calendar days less than the required times, e.g. typically thirty (30) days for the plan and ninety (90) days from the date of the letter providing technical and cost approval for the report, a ten percent (10%) completion incentive will be included as part of the payment for the successful early completion of the Tier II assessment. The complete Tier II Assessment will include as a minimum the following elements and will be received before the due date established in the letter approving the scope of work and cost agreement:
- Defines the geology across the extent of the plume both horizontally and vertically. The geology will be shown in all boring logs, well logs, and cross sections. Zones of high transport will be highlighted.
  - Correctly identify all possible current and potential receptors as well as other possible CoC sources. All domestic wells and surface bodies of water within a 1,000-foot radius of the facility or 500 feet from the most down gradient well will be documented and sampled. All other sources of CoC (other UST facilities, AST facilities, drycleaners, and Brownfield sites) within a 1,000-foot radius of the UST facility will be documented.
  - Defines the extent of free phase and dissolved petroleum Chemicals of Concern (CoC) in the soil and groundwater. Delineation will be considered complete when soil borings define the horizontal extent of soil contamination, a group of monitoring wells define the horizontal extent of free phase product, and a set of shallow and deep monitoring wells define the horizontal and vertical extent of dissolved groundwater CoC at or below risk based screening levels. For wells with product, a laboratory sample will be collected below the product.
  - Sieve analysis will be documented for each saturated geologic zone and groundwater seepage velocity will be determined for all shallow and deep zones of concern.
  - Proper management of investigative wastes and trash (bailers, gloves, bags, dirt piles). No waste or will be left on the site or adjacent properties. The disposal manifests will be included as part of the report.
  - One paper copy of the report and one electronic copy (one electronic .pdf copy of the entire report plus a separate Microsoft Word file of all text, Microsoft Excel file of all tables, and an AUTOCAD file of all figures) are received by the appropriate project manager or Tier II contract coordinator.
  - An abbreviated report will consist of the Tier II text or narrative portion, tables, and the figures showing the extent of CoC mailed to every property owner with a well located or sampled on their property.
  - A complete invoice is submitted to the Financial Section. The invoice will include all addendums and there will not be any items not previously approved.

Program review of screening data is necessary; however, the definition of the free phase and dissolved plumes is solely the responsibility of the contractor. If the project manager is not available to review screening data or to approve an addendum to the approved cost agreement, the Tier II contract coordinator (tel: 803-896-6669) should be contacted, if the contractor coordinator is not available the Manager of the Assessment Section (tel: 803-896-6585) should be



contacted. The UST Program suggests owners of adjacent properties be contacted as soon as possible or in conjunction with submittal of the Tier II Plan to expedite property access, alternative on-site and advanced screening methods should be employed to expedite field screening, coordination of drilling and laboratory services, management of investigative derived waste (to include gloves, bailers, drums, and roll off containers), as well as anticipation and resolution of unanticipated challenges to include adverse weather conditions or equipment problems. The contractor's work to overcome or absorb such delays or events in an effort to complete the sites within the Site Incentive Periods, regardless of whether the Contractor successfully does so or not, shall be the sole responsibility of the contractor in every instance. The contractor shall have no rights under the contract to make any claim arising out of this incentive provision.

24. The contractor will prepare and submit a Tier II Assessment Report (one paper copies and one electronic copies, at a minimum) shall be submitted to DHEC in accordance with the implementation schedule provided in the plan and approved by DHEC. The hard-copy report will have one-sided copies for text, analytical data, boring logs, field measurements, aquifer test data, modeling results, etc. A Professional Engineer or Geologist registered in the State of South Carolina from a DHEC certified site rehabilitation contractor must sign and seal the report. The contractor will submit both the paper and an electronic copy (CD-Rom or DVD) of the report. The CD-Rom or DVD copy will have one Adobe Acrobat .pdf format file of the entire report (signature page, text, figures, tables, well sampling forms, lab reports, signed well logs, signed property entry forms, signed survey plats, disposal manifests, tax map information, geophysical reports, core logs and fracture trace diagrams, etc.), a second Microsoft Word format file with all text, a third Microsoft Excel spreadsheet file with all tables, a fourth Adobe Acrobat .pdf file with all pictures, maps, figures, or other graphic information, and fifth an AutoCAD file with all surveys and figures. The DHEC may provide the successful contractor with a format for report completion. The report will include, at a minimum, the following elements:

#### **Facility Identification**

- Name of the facility, street address, business telephone number if any, and UST permit number.
- Tank owner at the time of the release (name, address, telephone number).
- Current tank owner, if different from the tank owner at the time of the release, and current land owner (name, address, telephone number).
- Signature and seal by the South Carolina certified professional that reviewed the report.
- Certified contracting firm that prepared the report (name, address, telephone, fax) and certification number.

#### **Introduction**

- Regional geology and hydrogeology.
- Receptor survey results; the results should include all known groundwater quality and public and private ground water usage.
- Site location maps; the report should include a legible copy of the relevant portion of a USGS topographic map showing the facility location in the center of the map and the locations of all public and private wells and other potential receptors within 1,000 feet of the facility or 500 feet beyond any groundwater monitoring well associated with this release, whichever is further from the source. A legible copy of the relevant portion of a tax map depicting the location of the facility, all impacted properties, and all properties located adjacent to the impacted properties shall also be included with property owner names, addresses, and phone numbers. The UST facility will be in the center of the map. The map shall depict all other facilities that might be a source of chemical of concern and the appropriate SCDHEC permit or tracking number (UST permit, Brownfield, AST permit) within a 1,000-foot radius of the site or 500 feet beyond any groundwater monitoring well associated with this release, whichever is further from the source. Also include a scaled vicinity map that indicates facility location, surface drainage, structures, roads, and adjacent property uses.
- The site map will be inclusive of 500 feet beyond the last downgradient monitoring well and 200 feet beyond all other perimeter monitoring wells. A scale of 1-inch equals 50 feet will be used and north oriented toward the top of the page unless prior approval is received from the project manager. This map will be the basis for all other maps.

#### **Assessment Information**

- Site-specific geology and hydrogeology.



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- Site potentiometric map; the map should show the direction of groundwater flow for the surficial aquifer. A scaled to 1-inch equals 50 feet will be used and north oriented toward the top of the page will be used unless the project manager approves a different scale and orientation in advance.
- Potentiometric data from all monitoring wells shall be listed in tabular form. Well data should include total depth, screened interval, depth to groundwater, groundwater elevation, product elevation, apparent product thickness, adjusted groundwater elevation, and top of casing elevation for all monitoring wells associated with the release.
- Assessment results; the report should include a brief discussion of the assessment and results. The discussion should include any methodology used that is not outlined in the plan or SOP.
- Site assessment map; the report should include a scaled, surveyed map that shows structures, underground utilities, potential receptors, USTs and associated piping and dispensers, and the locations of all sampling points and monitoring wells. The GPS location of all wells (private and monitoring) should be included as part of the Tier II Report. The locations shall be accurate to 15 feet or less. A South Carolina registered professional surveyor should certify the site assessment map or if the map is derived from a certified survey map, then a copy of the survey map should be included in the report Appendix.
- CoC site maps; the maps should show the known and estimated horizontal extent of CoC in the soil and groundwater. Analytical values for the CoC should be indicated at each sampling point. Combined BTEX maps are not acceptable. A scale of 1-inch equals 50 feet will be used and north oriented toward the top of the page unless the project manager approves a different scale and orientation in advance.
- Tax map of all adjacent properties and all properties with all wells sampled as part of the report. The tax map number, monitoring well(s) number (e.g., MW-1, DW-1) on that particular property, domestic or irrigation well number as listed on the maps (eg. WSW-1), name, address, and telephone number of the property owner plus the date an abbreviated copy of the report was mailed should be included in a tabular format.
- Geologic cross-sections; the report should include two cross-sections showing the lithology and stratigraphy of the site, and the known and estimated vertical extent of CoC in the soil and groundwater. One cross section should be oriented parallel to the direction of groundwater flow and the other cross-section should intersect at a 90-degree angle if possible. The cross section should depict the location of any fractures identified.
- Analytical data - soil and groundwater analytical data for the facility should be given in tabular form for all groundwater monitoring wells, private wells, surface water or any other samples collected. Any previous analytical data should be included for each well. Tabulated soil analytical data for all points to include grain size/hydrometer and total organic carbon results.
- Aquifer evaluation results- the report should include a brief discussion of the aquifer evaluation and results. All data, graphs, and equations used to derive the aquifer characteristics should be included in the report Appendix.
- Aquifer characteristics (e.g., hydraulic conductivity, seepage velocity, etc.) should be summarized on the slug and/or pumping test forms, for each boring or fracture zone as appropriate.
- A brief description of the fate and transport model(s) used should be presented. All assumptions should be clearly identified. The input parameters are to be given in tabular form.
- A map or series of maps showing the predicted migration of the individual CoC should be presented. Total BTEX maps will not be used.

#### **Tier II Risk Evaluation**

- Exposure pathway analysis; the analysis should be done in accordance with the South Carolina Risk-Based Corrective Action For Petroleum Releases document.
- The name, address, telephone number, well depth, and approximate age for all wells within 1,000 foot radius of the facility or 500 feet beyond any groundwater monitoring well associated with this release, whichever is greater. The name, address, and telephone number of the owner of all surface water intakes within 1,000 foot radius of the facility or 500 feet beyond any groundwater monitoring well associated with this release, whichever is greater.
- If requested, Site Specific Target Levels (SSTLs) shall be calculated for each CoC and for each potential exposure pathway and included in tabular form.
- Recommendations; the report should include recommendations for further action (additional assessment, active remediation, intrinsic remediation) as warranted by the Tier II evaluation.

#### **Appendix**

Assessment data and related documents; the appendix should include, but not be limited to; boring logs, down hole



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gamma or other logs, core logs, well construction details, laboratory data sheets and chain-of-custody forms, aquifer evaluation data, graphs, equations, signed right-of entry forms, and disposal manifests. List of names, addresses, and telephone number for owners of all potable and water supply wells if not included with tax map information. Boring logs, well construction details and field screening results should be submitted on a one page form approved by the DHEC in addition to a DHEC form 1903 signed by a SC licensed well driller. The report appendix should include all fate and transport modeling data (if modeling is requested).

25. The contractor will deliver a copy of the abbreviated report as outlined in special condition 5, for the tank owner, each of the adjacent property owners with a monitoring well installed or a receptor sampled on their property. The abbreviated report text and table will be printed on both sides of the paper. The Department may request additional copies of the report for other property owners. The cost of the abbreviated report will include the cost of delivery (US Postal Service, hand deliver, Fedex) to the tank owner and property owners.

26. The contractor will provide project management and coordination of site rehabilitation activities. The contractor shall assign a staff member who will serve as a project manager for communication purposes, coordination of the project, obtaining off-site access, invoicing and administering instructions from the UST program. The name, telephone number, and E-mail address (if available) will be provided in the SOP.

All costs associated with report preparation and project management will be determined as a percentage of the total cost of all applicable components. Report preparation includes all personnel, equipment, and material costs to complete one paper copy and one CD-rom or DVD containing electronic copies of the report. Project coordination includes all personnel and miscellaneous costs associated with procuring subcontractors, coordination of the project, and communication with any relevant parties, invoicing, and coordination with the department.

27. The contractor will provide the Tier II project coordinator an update of projects every two weeks. Proposed and completed dates for the following items will be reported: plan submitted, plan approval, property access, field screening dates, well installation, groundwater sampling, and report submission.

28. The contractor will abandon wells if requested and approved by the project manager. The rate will include forced injection or tremie grouting by a mechanical pump from the bottom to within 2 inches of the surface of up to a six-inch diameter boring or monitoring well in accordance with the SC Well Standards and Regulations (R.61-71). The upper three inches of the monitoring well shall be filled with a material comparable to the surrounding material. For example, an asphalt plug should be placed in the upper three inches of a boring advanced in an asphalt parking lot, and a native soil/grass plug may be used in the upper three inches of a boring advanced in a grassy area. An equipment mobilization may be paid in addition to a personnel mobilization if the casing is removed as part of the abandonment process. A DHEC form 1903 with section four (4) completed and signed by a SC licensed well driller will be included as part of the report. If an installed well is larger than six-inch diameter or a dug well is larger than six-foot diameter, the contractor will include an invoice for the additional materials (grout, cement, asphalt patch) required to abandon the larger well. Costs to abandon screening points is included as part of the screening rate.

29. Other:

- A. All on-site personnel shall be OSHA certified pursuant to CFR 1910.120.
- B. The contractor will, at all times, keep all properties free from waste materials and rubbish. Upon completion of the work, the contractor will leave the premises in the same condition or better, as prior to work. All empty cement bags, unused plastic, and other trash will be removed and properly disposed of on a daily basis. All generated soil and wastewater will be removed from the site within thirty days. Manifests documenting that the soil and wastewater have been delivered to a permitted disposal or treatment facility must be included in the Appendix of the report. The Department cannot pay costs for disposal without a completed disposal manifest.
- C. The contractor shall be responsible for obtaining the proper equipment necessary to complete the work as described in the assessment plan and under any circumstances that may be encountered in the field.
- D. If equipment problems arise that are a result of contractor oversight, acquisition of proper equipment shall not result in delays or additional costs to DHEC.
- E. Right-of-entry requests for the property on which the release occurred shall be obtained by DHEC. Off-site



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right-of-entry requests and approvals shall be the responsibility of the contractor. If any problems are encountered, the DHEC project manager will be notified within 24 hours verbally, and in writing within five business days.

- F. The contractor will be responsible for contacting the UST owner/operator and each property owner a minimum of five days prior to mobilizing to the facility. Disruption to the operator's business should be minimized.
- G. The consultant shall be responsible for obtaining water and electricity for assessment activities. Additionally, the consultant shall obtain at no additional cost to SCDHEC safety barriers, traffic control as required by the Manual of Uniform Traffic Control Devices as well as any permits or business licenses from municipalities, state, and federal agencies in order to safely do work.
- H. The consultant shall be responsible for paying all subcontractors or vendors in full within 15 days after reimbursement by SCDHEC for work performed in accordance with this contract.

**Bidding Schedule Calculation**

The following scope of work is provided for the purpose of determining the award only. The actual number and type of assessment components will be determined on a site-specific basis. The attached "Assessment Competitive Pricing Proposal" form shall be completed for the state of South Carolina. **Failure to provide information on the form (i.e., omission of a unit price for a component) may result in rejection of the bid or if a price is omitted or \$0.00 is component bid price the contractor may be required to complete the component(s) at no cost (for free).** Unit prices for each component/item are to be entered in the appropriate column on the form. The unit price is then to be multiplied by the quantity (the number indicated for each component/item on the form) in order to determine the line item amount. Line items for components 1 to 19 are then to be added to obtain a subtotal amount. The subtotal amount should then be multiplied by the proposed percentage associated with report preparation and project management to provide a line item amount for component 20. This line item amount should then be added to the subtotal to obtain the total bid amount. The award will be based on the comparison of this total amount. The Department will not be responsible for any math errors by the bidder.



**THIS FORM MUST BE COMPLETED IF YOU ARE BIDDING**

**BIDDING SCHEDULE**

**ASSESSMENT COMPETITIVE PRICING AGREEMENT**

SOUTH CAROLINA DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL

Underground Storage Tank Program

State Underground Petroleum Environmental Response Bank

ITEM / UNIT	QUANTITY	UNIT PRICE	LINE ITEM AMOUNT
1. Plan Preparation (each)			
a. Tier II or Component	1	\$ _____	\$ _____
b. Tax Map Information	1	\$ _____	\$ _____
2. Receptor Survey (each)	1	\$ _____	\$ _____
3. Survey (each 500' x 500')			
a. Registered Land survey	2	\$ _____	\$ _____
b. Subsurface Geophysical Geological survey			
(1.) Less than 10 meters below ground surface	2	\$ _____	\$ _____
(2.) More than 10 meters below ground surface	2	\$ _____	\$ _____
c. Subsurface Geophysical UST or drum survey	2	\$ _____	\$ _____
4. Mobilization (per mob/demob)			
a. Heavy Equipment	2	\$ _____	\$ _____
b. Personnel	4	\$ _____	\$ _____
c. Adverse Terrain	1	\$ _____	\$ _____
d. Site Reconnaissance to prepare Tier II Plan	1	\$ _____	\$ _____
5. Soil Boring - hand auger (per foot cost includes sample collection and abandonment)	100	\$ _____	\$ _____
6. Field Screening – drilled (per foot costs include sample collection and abandonment)			
a. Standard	600	\$ _____	\$ _____
b. Alternative, analysis (not lab) performed on site	600	\$ _____	\$ _____
c. Alternate, mobile lab analysis on site	600	\$ _____	\$ _____
d. Fractured rock down borehole	200	\$ _____	\$ _____
7. Soil Leachability Model (each)	1	\$ _____	\$ _____
8. Abandonment (per foot)			
a. Existing Monitoring Well 2" or smaller	200	\$ _____	\$ _____
b. Existing Monitoring Well 6" or smaller	100	\$ _____	\$ _____
c. Dug Well Up to 6' diameter	25	\$ _____	\$ _____



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9. Well Installation (per foot) (Includes cost associated with soil screening)			
a. Monitoring well (hand auger)	20	\$ _____	\$ _____
b. Monitoring well (drilled with pad) (2" ID well)	200	\$ _____	\$ _____
c. Telescoping Deep or pit cased well	120	\$ _____	\$ _____
d. Rock well	200	\$ _____	\$ _____
e. Core Drilling	200	\$ _____	\$ _____
f. Multi sampling ports or screen intervals	40	\$ _____	\$ _____
g. Recovery well (drilled with pad) (4" ID well)	50	\$ _____	\$ _____
h. Prepacked screen Monitoring well (pushed with pad) (1.25" ID well)	40	\$ _____	\$ _____
i. Rhotosonic well (installed with pad) (2" ID well)	100	\$ _____	\$ _____
9 Alternate. Well Installation (per foot <b>with IDW disposal</b> ) <u>COST includes proper management, transport and disposal of all soil cuttings, drilling mud plus cost associated with soil screening</u>			
j. Monitoring well (hand auger)	20	\$ _____	\$ _____
k. Monitoring well (drilled with pad) (2" ID well)	200	\$ _____	\$ _____
l. Telescoping Deep or pit cased well	120	\$ _____	\$ _____
m. Rock well	200	\$ _____	\$ _____
n. Recovery well (drilled with pad) (4" ID well)	200	\$ _____	\$ _____
o. Rhotosonic well (installed with pad) (2" ID well)	100	\$ _____	\$ _____
11. Ground-Water Analyses (per sample)			
a. BTEX + Naphthalene + MTBE	22	\$ _____	\$ _____
b. BTEX + Naph + MTBE (8260B) – RUSH	4	\$ _____	\$ _____
c. Trimethyl, Butyl, & Isopropopyl Benzenes	10	\$ _____	\$ _____
d. PAHs	2	\$ _____	\$ _____
e. Total Lead	22	\$ _____	\$ _____
f. EDB	22	\$ _____	\$ _____
g. EDB -Rush	4	\$ _____	\$ _____
h. 8 RCRA Metals	22	\$ _____	\$ _____
i. TPH (9070)	1	\$ _____	\$ _____
j. pH	1	\$ _____	\$ _____
k. BOD	1	\$ _____	\$ _____
l. Nitrate	22	\$ _____	\$ _____
m. Sulfate	22	\$ _____	\$ _____
n. Ferrous Iron	22	\$ _____	\$ _____
o. Methane	22	\$ _____	\$ _____
p. Filtered Lead	10	\$ _____	\$ _____
q. 8 Oxygenates	22	\$ _____	\$ _____
r. 1,2 DCA	22	\$ _____	\$ _____
s. Ethanol	22	\$ _____	\$ _____
11. Soil, Air, Free Product Analyses (per sample)			
t. BTEX + Naphthalene	10	\$ _____	\$ _____
u. PAHs	10	\$ _____	\$ _____
v. 8 RCRA Metals	2	\$ _____	\$ _____
w. TPH (3550B/8015B)	1	\$ _____	\$ _____
x. TPH (5030B/8015B)	1	\$ _____	\$ _____
y. Grain Size / Hydrometer	16	\$ _____	\$ _____
z. Total Organic Carbon	1	\$ _____	\$ _____
aa. Air BTEX + Naph.	1	\$ _____	\$ _____
bb. Free Product Hydrocarbon Fuel (Age and Type Identification)	4	\$ _____	\$ _____



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12. Aquifer Characterization			
a. Pumping Test (per hour)	12	\$ _____	\$ _____
b. Slug Test (per test)	3	\$ _____	\$ _____
c. Fractured Rock (per test)	12	\$ _____	\$ _____
13. Free Product Recovery Rate Test (Per test)	3	\$ _____	\$ _____
14. Fate/Transport Modeling (per model)			
a. Mathematical Model	1	\$ _____	\$ _____
b. Computer Model	1	\$ _____	\$ _____
15. Tier Evaluation (per evaluation)			
a. Tier I	1	\$ _____	\$ _____
b. Tier II	1	\$ _____	\$ _____
16. Subsequent Survey (per 500' x 500')	2	\$ _____	\$ _____
17. Small Volume Disposal			
a. Wastewater (per gallon)	200	\$ _____	\$ _____
b. Free Product (per gallon)	10	\$ _____	\$ _____
c. Soil (per ton)	8.6	\$ _____	\$ _____
d. Water or Soil (per drum) <u>See Specification 7.b.</u>	50	\$ _____	\$ _____
e. Drilling fluids (per gallon)	500	\$ _____	\$ _____
<u>Note: Rate includes cost of suitable container(s)</u>			
18. Delivered paper copies of the abbreviated report (in addition to 1 completed paper copy and CD-rom)	8	\$ _____	\$ _____
19. Repair of an existing Monitoring Well (per item)			
a. Replace 2 ft. by 2 ft. or smaller pad	2	\$ _____	\$ _____
b. Replace 4 ft. by 4 ft. or smaller pad	4	\$ _____	\$ _____
c. Replace well vault and up to 4' by 4' pad	2	\$ _____	\$ _____
d. Replace/Repair Stick Up	2	\$ _____	\$ _____
e. Convert Flush Mounted Pad to Stickup	1	\$ _____	\$ _____
f. Convert Stickup Well to Flush Mounted Well	1	\$ _____	\$ _____
		<b>SUBTOTAL</b>	\$ _____
20. Report Prep. & Project Management	_____ %	% Of subtotal	\$ _____
		<b>TOTAL =</b>	\$ _____



**PLEASE ALSO COMPLETE AND RETURN PAGE 25**

**THIS FORM MUST BE COMPLETED IF YOU ARE BIDDING**

**Other Criteria**

Please respond to the following questions that have been designed to verify the required qualifications and to assess the capacity of the lowest bidders. If the lowest bidder does not have the capacity to perform the scheduled number of assessments in a given month, the next lowest bidder will be given the opportunity to participate.

1. When can you begin the work?

\_\_\_\_\_

2. Please provide three (3) references that we may contact regarding your past performance. Do not list personnel from the UST Program as a reference.

- a) Agency or company name \_\_\_\_\_  
Services provided \_\_\_\_\_  
Name of contact person \_\_\_\_\_  
Telephone number \_\_\_\_\_
- b) Agency or company name \_\_\_\_\_  
Services provided \_\_\_\_\_  
Name of contact person \_\_\_\_\_  
Telephone number \_\_\_\_\_
- c) Agency or company name \_\_\_\_\_  
Services provided \_\_\_\_\_  
Name of contact person \_\_\_\_\_  
Telephone number \_\_\_\_\_

**BID ACCEPTANCE AND DELIVERY STATEMENT:**

**In compliance with the invitation and subject to all conditions thereof, the above signed offers and agrees, if this bid is accepted within \_\_\_\_\_ days from date of opening, to furnish any or all items/services quoted at the prices set forth.**



**PLEASE READ THE FOLLOWING CAREFULLY PRIOR TO COMPLETING BID**

**INSTRUCTIONS TO BIDDERS**

**DISCUSSIONS AND NEGOTIATIONS:** By submission of a bid, bidder agrees that during the period following issuance of this solicitation and prior to notification of intent or award of a contract, the bidder shall not discuss this procurement with any party except members of the DHEC Procurement Division or other parties designated in this solicitation. Bidder shall not discuss or attempt to negotiate with the using area or program any aspects of the procurement without prior approval of the DHEC Procurement Division Buyer responsible for the procurement. Infractions may result in rejection of the violator's bid.

1. Unless otherwise required herein, only one signed copy of the invitation to bid is required.
2. Bids "faxed" directly to the DHEC Procurement Office will not be accepted or considered for award.
3. Bids, amendments thereto or withdrawal request must be received by the time advertised for bid opening. It is the bidder's sole responsibility to insure that these documents are received by the person (or office) at the time indicated in this solicitation document. DHEC Underground Storage Tank Environmental Remediation Procedures shall govern any withdrawal request received after the time of the bid opening.
4. When specifications or descriptive papers are submitted with the bid submission, enter bidder's name thereon.
5. Submit your signed bid on this form. Show the bid number on the envelope as instructed. DHEC assumes no responsibility for unmarked or improperly marked envelopes. All envelopes received showing a bid number are placed directly under locked security until the date and time of opening. Do not include more than one bid invitation per envelope. If directing any other correspondence, address the envelope to the Procurement Officer but do not include the bid number on the envelope since it does not include your bid.
6. Bidders must clearly mark as "CONFIDENTIAL" each part of their bid which they consider to be proprietary information that could be **exempt from disclosure** under Section 30-4-40, Code of Laws of South Carolina 1976 (1986 Cum. Supp.; Freedom of Information Act). If any part is designated as confidential, there must be attached to that part an explanation of how this information fits within one or more categories listed in Section 30-4-40. DHEC reserves the right to determine whether this information should be exempt from disclosure and no legal action may be brought against the State, DHEC or its agents for its determination in this regard.
7. By submission of a bid, **you are guaranteeing** that all goods and services meet the requirements of this solicitation during the contract period.
8. **Tie bids** will be resolved as outlined in DHEC Underground Storage Tank Environmental Remediation Procedures.
9. **Do not include any taxes** that DHEC may be required to pay in the bid price. Upon submission of a bid by a state agency, the Procurement Officer will compute a 5% sales and use tax to the non-state agency bids when applicable (service and labor excluded) in determining the low bidder. This procedure conforms to the SC Tax Commission Sales and Use Tax Regulation 117-174-. 95.
10. **Correction of errors on this bid form:** All prices and notations should be printed in ink or typewritten. Errors should be crossed out, corrections entered and initialed by the person signing the bid. Erasures or use of typewriter correction fluid may be cause for rejection. No bid shall be altered or amended after the time specified for the bid opening.
11. **Ambiguous bids** that are uncertain as to terms, delivery, quantity, or compliance with this solicitation may be rejected or otherwise disregarded.
12. Any bidder desiring to exercise a grievance may do so under section IV of DHEC Underground Storage Tank Environmental Remediation Procedures. All correspondence should be directed to the Director of Procurement Services, Bureau of Business Management, 2600 Bull Street, Columbia, SC 29201.
13. **Failure to respond** to three consecutive bid notices may result in removal of bidder's name from the mailing list.

**GENERAL PROVISIONS**

14. DHEC reserves the right to reject any and all bids, and to cancel this solicitation.
15. **Unit prices** will govern over extended prices unless otherwise stated in this solicitation.
16. **Prohibition of Gratuities:** Amended section 8-13-420 of the 1976 Code of Laws of South Carolina States: "Whoever gives or offers to any public official or public employee any compensation, including a promise of future employment, to influence his action, vote, opinion or judgment as a public official or public employee or such public official solicits or accepts such compensation to influence his action, vote, opinion or judgment shall be subject to the punishment as provided by Section 16-9-210 and Section 16-9-220. The provisions of this section shall not apply to political contributions unless such contributions are conditioned upon the



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- performance of specific actions of the person accepting such contribution nor shall they prohibit a parent, grand-parent or relative from making a gift to a child, grandchild, or other close relative for love and affection except as hereafter provided".
17. **Bidder's Qualification:** Bidders must, upon request of DHEC, furnish satisfactory evidence of their ability to furnish products or services in accordance with the terms and conditions of these specifications. DHEC reserves the right to make the final determination as to the bidder's ability to provide the products or services requested herein.
18. **Bidder's Responsibility:** Each bidder shall fully acquaint himself with conditions relating to the scope and restrictions attending the execution of the work under the conditions of this solicitation. It is expected that this will sometimes require on-site observation. The failure or omission of a bidder to acquaint himself with existing conditions shall in no way relieve him of any obligation with respect to this bid or to the subsequent contract.
19. **Amendments:** All amendments to and interpretations of this solicitation shall be in writing from the DHEC Procurement Office. Neither DHEC nor the Procurement Officer shall be legally bound by any amendment or interpretation that is not in writing.
20. **Award Criteria:** Award shall be as indicated herein to the lowest responsible and responsive bidder whose bid meets the requirements and criteria set forth in this solicitation. Award may take longer than fourteen days. A copy of the award notice should be posted on Procurement Services' website at: [dhec.sc.gov/procurement](http://dhec.sc.gov/procurement).
21. **Rejection:** DHEC reserves the right to reject any bid that contains prices for individual items or services that are unreasonable when compared to the same or other bids if the rejection is in the best interest of the State.
22. **Competition:** This solicitation is intended to promote competition. If the language, specifications, terms and conditions, or any combination thereof restricts or limits the requirements in this solicitation to a single source, it shall be the responsibility of the interested bidders to notify the DHEC Procurement Office in writing so as to be received five days prior to the opening date. Notification may be "faxed" to the DHEC Procurement Office, (803) 898-3505. The solicitation may or may not be changed but a review of such notification will be made prior to award.
23. **Order of Precedence:** In the event of inconsistency between provisions of this solicitation, the inconsistency shall be resolved by giving precedence in the following order; (A) the bidding schedule, (B) the specifications, (C) general conditions, (D) special provisions or special conditions of the contract whether incorporated by reference or otherwise, and (E) instruction to bidders.

**GENERAL CONDITIONS**

24. **Contract Administration:** Questions or problems arising after award of this solicitation/contract shall be directed to the DHEC Procurement Office, 2600 Bull Street, Columbia, SC, 29201. Reference the solicitation and contract number.
25. **Default:** In case of default by the contractor, DHEC reserves the right to purchase any or all items in default in the open market, charging the contractor with any additional costs. The defaulting contractor shall not be considered a responsible bidder until the assessed charge has been satisfied.
26. **Save Harmless:** (This General Condition does not apply to solicitations for service requirements). The successful bidder shall indemnify and save harmless the State of South Carolina and DHEC and all its officers, agents and employees from all suits or claims of any character brought by reason of infringing on any patent, trade mark or copyright. The bidder shall have no liability to DHEC if such patent, trademark or copyright infringement or claim is based upon the bidder's use of material furnished to the bidder by the State.
27. **Publicity Releases:** By submission of a bid, the contractor agrees not to refer to award of this contract in commercial advertising in such a manner as to state or imply that the products or services provided are endorsed or preferred by DHEC or user.
28. **Tax Credit Availability:** Bidders interested in income tax credit availability by subcontracting with Certified Minority Firms should contact the Office of Minority Business Assistance, 1205 Pendleton Street, Columbia, SC, 29201. (803-734-0562)
29. **Affirmative Action:** The successful bidder will take affirmative action in complying with all Federal and State requirements concerning fair employment and employment of the handicapped, and concerning the treatment of all employees, without regard or discrimination by reason of race, color, religion, sex, national origin or physical handicap.
30. **Assignment:** Unless otherwise indicated in this solicitation, no contract or its provisions may be assigned, sublet, subcontracted, or transferred without the prior written consent of the DHEC Procurement Office.
31. **Termination:** Any contract resulting from this solicitation may be terminated by DHEC by providing a thirty-day advance notice in writing to the successful contractor.
32. **Non-Appropriations:** Any contract entered into by DHEC resulting from this solicitation shall be subject to cancellation without damages or further obligation when funds are not appropriated or otherwise made available to support continuation of performance in a subsequent fiscal period or appropriated year.
33. **Convenience:** In the event that this contract is terminated or canceled upon request and for the convenience of DHEC without the required thirty days advance written notification, then DHEC shall negotiate reasonable applicable termination costs.



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34. **Cause:** Any contract resulting from this solicitation may be terminated without advance notice by DHEC for cause, default or negligence on the part of the successful contractor.
35. **S.C. Law Clause:** Upon award of a contract under this bid, the person/partnership, association or corporation to whom the award is made must comply with the laws of South Carolina which require such person or entity to be authorized and/or licensed to do business with this State. Notwithstanding the fact that applicable statutes may exempt or exclude the successful bidder from requirements that it be authorized and/or licensed to do business in this State. By submission of a bid, the bidder agrees to subject himself to the jurisdiction and process of the courts of the State of South Carolina as to all matters and disputes arising or to arise under the contract and the performance thereof, including any questions as to the liability for taxes, licenses or fees levied by the State of South Carolina.
36. **Quality of Product:** (This general condition does not apply to solicitations for printing or service requirements.) Unless otherwise indicated in this solicitation, it is understood and agreed that any item offered or shipped as a result of this solicitation shall be new and in first class condition, that all containers shall be new and suitable for storage or shipment, and that prices include standard commercial packaging. If items that are other than new (i.e., remanufactured or refurbished) are desired to be bid, the bidder must obtain written permission to bid such items at least five days in advance of the bid opening date. Written permission must be obtained from the DHEC Procurement Office.
37. **Compliance with Federal Requirements:** S.C. State or Federal requirements that are more restrictive shall be followed in bidding, awarding and performance of this contract.
38. **Drug-Free Workplace:** Required by Section 44-107-10 (Drug Free Work-Place Act) of the SC Code of Laws, 1976, as amended. By submission of a bid, the bidder certifies that he will comply with all aspects of the Drug-Free Workplace Act and will not engage in the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance in the performance of this contract. This certification also applies to any individual or firm employed by the contractor.
39. **Confidentiality Policy:** The successful contractor agrees to abide by DHEC's policy of confidentiality which states in part that all information as to personal facts and circumstances given or made available to employees and/or contractors of DHEC in administration of programs shall be held confidential and shall not be divulged without the express written consent of the individual(s) to which it pertains.
40. **Item Substitution:** No substitution of items will be allowed on any purchase made from the awarded contract without written permission from the DHEC Procurement Office.
41. **Outside Contractor Program:** If applicable to scope of contract, contracted employees working on DHEC properties are entitled to information about hazardous chemicals present at DHEC; and DHEC's personnel are entitled to information about hazardous chemicals brought to the facilities by contractors. In order to assure continued compliance with the Hazard Communication Standards while contractors are on DHEC property and to control potential compliance obligations under the Superfund Amendments and Re-authorization Act, it is DHEC's policy to:
- A. Obtain written assurance that the contractor's employees have been trained to understand the hazards of the chemicals at DHEC and how to use appropriate personal protective equipment. All personal protective equipment and training required for the contractor's employees will be provided by the contractor at the contractor's expense. (This includes SC State General Services employees).
  - B. Require the contractor to notify the DHEC Bureau of Business Management or the appropriate DHEC unit Director when introducing hazardous chemicals into DHEC work areas, which may harmfully expose DHEC employees. If the contractor is introducing such hazardous chemicals into any DHEC facility or onto DHEC property, the contractor shall provide the DHEC Division of Procurement Services or the DHEC unit Director copies of the Material Safety Data Sheets (MSDS) for those chemicals. The DHEC Division of Procurement Services or the DHEC unit Director should provide appropriate information to the DHEC employees before the contractor(s) enter any DHEC facility with chemicals.
  - C. DHEC reserves the right to refuse to allow any contractor to bring any chemical onto DHEC property. The Department also reserves the right to refuse to allow any contractor to bring certain quantities of chemicals on DHEC property.